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Claims:-

1. An isolated polynucleotide molecule comprising a nucleotide sequence encoding a pigment protein from coral tissue (PPCT) capable of emitting fluorescence upon irradiation by incident light, wherein maximal absorbance of said incident light is in the range of 320 - 600 nm, and maximal fluorescence emission is in the range 300 - 700 nm.
2. The isolated polynucleotide molecule of claim 1, wherein the encoded pigment protein has a maximal absorbance of said incident light in the range of 550 - 580 nm, and a maximal fluorescence emission in the range 400 - 630 nm).
3. An isolated polynucleotide molecule comprising a nucleotide sequence encoding a pigment protein from coral tissue (PPCT), wherein said molecule comprises a nucleotide sequence encoding a protein having the N-terminal amino acid sequence:
SVIAK (SEQ ID NO: 1).
4. An isolated polynucleotide molecule comprising a nucleotide sequence encoding a pigment protein from coral tissue (PPCT), wherein said molecule comprises a nucleotide sequence encoding a protein having the N-terminal amino acid sequence:
SVIAKQMTYKVYMSGTV (SEQ ID NO: 2).
5. The isolated polynucleotide molecule of any one of the preceding claims, wherein the encoded protein includes a chromatophore region comprising the amino acid sequence: QYG.
6. The isolated polynucleotide molecule of any one of the preceding claims, wherein said molecule comprises a nucleotide sequence encoding a protein having an amino acid sequence corresponding to the sequence shown as SEQ ID NO: 3 or 4.

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7. The isolated polynucleotide molecule of any one of the preceding claims, wherein said molecule comprises a nucleotide sequence which has at least 80% identity to the sequence shown as SEQ ID NO: 5 or 6.
8. The isolated polynucleotide molecule of claim 7, wherein said molecule comprises a nucleotide sequence which has at least 90% identity to the sequence shown as SEQ ID NO: 5 or 6.
9. The isolated polynucleotide molecule of claim 7, wherein said molecule comprises a nucleotide sequence which has at least 95% identity to the sequence shown as SEQ ID NO: 5 or 6.
10. The isolated polynucleotide molecule of any one of the preceding claims, wherein said molecule comprises a nucleotide sequence substantially corresponding to the sequence shown as SEQ ID NO: 5 or 6.
11. A protein comprising the N-terminal amino acid sequence:
SVIAK (SEQ ID NO: 1), said protein being in a substantially purified form.
12. A protein comprising the N-terminal amino acid sequence:
SVIAKQMTYKVYMSGTVN (SEQ ID NO: 2), said protein being in a substantially purified form.
13. The protein of claim 11 or 12, wherein said protein comprises an amino acid sequence corresponding to the sequence shown as SEQ ID NO: 3 or 4.
14. The protein of any one of claims 11 to 13, wherein said protein can be purified from coral tissue from a coral family selected from the group consisting of: Pocilloporidae, Acroporidae, Poritidae, Faviidae, Merulinidae and Fungiidae.
15. The protein of claim 14, wherein said protein can be purified from tissue of coral selected from the group consisting of: *Acropora aspera*.

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Acropora digitifera, Acropora horrida, Acropora formosa, Montipora monasteriata, Montipora caliculata, Pocillopora damicornis, Porites murrayensis, Porites lobata, Plesiastrea versipora and Seriatopora hystrix.

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16. The protein of claim 14, wherein said protein can be purified from tissue of coral selected from the group consisting of: *Acropora aspera, Acropora horrida, Montipora monasteriata, Montipora caliculata, Porites murrayensis, Porites lobata, and Plesiastrea versipora.*

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17. A vector comprising a polynucleotide molecule according to any one of claims 1 to 10.

18. A host cell transfected or transformed with the vector of claim 17.

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19. A process for producing the protein of any one of claims 11 to 16, wherein the process comprises the step of cultivating a host cell transfected or transformed with a vector according to claim 17 under conditions suitable for expression of the polynucleotide molecule encoding the protein, and optionally recovering the expressed protein.

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20. The process of claim 19, wherein the step of cultivating a host cell is conducted at a temperature in the range of 30 - 37°C.

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21. The process of claim 19, wherein the step of cultivating a host cell is conducted at a temperature of about 35°C.

22. An oligonucleotide probe or primer comprising a nucleotide sequence that hybridises selectively to a polynucleotide molecule according to any one of claims 1 to 10.

23. The oligonucleotide probe or primer of claim 22, wherein said probe or primer comprises at least 8 nucleotides.

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24. The oligonucleotide probe or primer of claim 22, wherein said probe or primer comprises at least 18 nucleotides.

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25. The oligonucleotide probe or primer of ~~claim 22~~, wherein said probe or primer comprises at least 25 nucleotides.

26. The oligonucleotide probe or primer of any one of ~~claims 22 to 25~~, wherein the oligonucleotide is conjugated to a detectable label.

27. Use of a protein according to any one of ~~claims 11 to 16~~ as a tissue marker, fluorescent marker or general dyestuff.

28. A sunscreen formulation comprising an effective amount of a protein according to any one of ~~claims 11 to 16~~, in admixture with a suitable pharmaceutical-acceptable carrier or excipient.

29. A filter for screening UV or other wavelength(s) of incident light comprising an effective amount of a protein according to any one of ~~claims 11 to 16~~.

30. The filter of ~~claim 29~~, wherein the UV or other wavelength(s) of incident light is screened by absorption of the energy associated with said light by said protein and is then emitted at a longer wavelength than said incident light.

31. The filter of ~~claim 30~~, wherein the absorbed energy of said incident light is emitted from said protein at a wavelength in the range of 400 to 550 nm.